



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,354	06/30/2004	Masayo Higashiyama	2004_1016A	2612
513 7590 12/20/2010 WENDEROTH, LIND & PONACK, L.L.P. 1030 15th Street, N.W., Suite 400 East Washington, DC 20005-1503				
EXAMINER				
FRAZIER, BARBARA S				
ART UNIT		PAPER NUMBER		
1611				
NOTIFICATION DATE		DELIVERY MODE		
12/20/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com  
coa@wenderoth.com

# Office Action Summary

**Application No.**

10/500,354

**Applicant(s)**

HIGASHIYAMA, MASAYO

**Examiner**

BARBARA FRAZIER

**Art Unit**

1611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Status of Claims*

1. Claims 1-10, 12, and 13 are pending in this application. Claim 11 stands canceled.
2. Claims 1-10, 12, and 13 are examined.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The rejection of claims 1-10, 12, and 13 under 35 U.S.C. 103(a) as being unpatentable over Stevenson (US Patent 4,053,628) in view of Kita et al (US Patent 6,307,052) is withdrawn in view of Applicant's amendments to claims 1, 10, and 13 limiting the active ingredient to that consisting of (+)-(S)-4-[4-[(4-chlorophenyl)(2-pyridyl)methoxy]piperidino]butyric acid (i.e., bepotastine) or a pharmaceutically acceptable acid addition salt thereof. However, in light of and as necessitated by Applicant's amendment, a new ground of rejection is made in view of Kita et al and Lehmuusaari et al (see paragraph 5, below).

**5. Claims 1-10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kita et al (US Patent 6,307,052, previously cited) in view of Lehmusaaari et al (US Patent 5,795,913).**

The claimed invention, as amended, is drawn to an aqueous liquid preparation comprising, in an aqueous solution, an active ingredient consisting of (+)-(S)-4-[4-(4-chlorophenyl)(2-pyridyl)methoxy]piperidino]butyric acid (i.e., bepotastine) or a pharmaceutically acceptable acid addition salt thereof, and a water-soluble metal chloride in a light stabilizing effective amount of 0.2 w/v% or more (see claim 1).

Kita et al teach that the benzenesulfonic acid salt or benzoic acid salt of (S)-4-[4-[(4-chlorophenyl)(2-pyridyl)methoxy]piperidino]butanoic acid (i.e., bepotastine) is excellent in antihistaminic activity and antiallergic activity, has little hygroscopicity and excellent in physicochemical stability, so that it is particularly suitable compound as a medicine. Kita et al also teach that its present invention relates to a medical composition containing the compound as an effective ingredient (see col. 1, lines 10-22).

While Kita et al teach a medical composition comprising bepotastine, Kita et al do not specifically teach how the composition is formulated, and do not specifically teach a water-soluble metal chloride in a light stabilizing effective amount of 0.2 w/v% or more.

Lehmussaari et al teach an ophthalmic composition in the form of a topical aqueous solution consisting essentially of an ophthalmologically active agent containing basic groups, an ion sensitive hydrophilic polymer containing acidic groups, and at least one salt selected from the group of inorganic salts and buffers in a total amount of from

0.01 to 2.0% by weight (abstract). The ophthalmologically active agent may be an antiallergic agent containing basic groups, including basic heterocycles, such as pyridine and piperidine (col. 4, lines 2-9). Choices of salts include sodium chloride and potassium chloride (claim 5); sodium chloride in an amount of 0.9% w/v is exemplified (col. 5, Example 2). The composition is administered as a liquid and obtains a desired beneficial effect of the active agent in the eye, while simultaneously reducing any discomfort in the patient's eye, as compared to the administration of a composition in gel form. The composition also provides for an additional wetting effect while providing for a better contact and thus a controlled absorption of active agent into the eye (col. 2, lines 10-18).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to formulate the medical composition of Kita et al with the aqueous solution of Lehmuusaari et al; thus arriving at the claimed invention. One skilled in the art would be motivated to do so because the aqueous solution of Lehmuusaari et al provides the benefits of better contact and controlled absorption of active agent into the eye, as well as additional wetting effect, as taught by Lehmuusaari et al (col. 2, lines 10-18). One would reasonably expect success from the use of the formulation of Lehmuusaari et al to formulate the medical composition of Kita et al because Lehmuusaari et al teaches that the ophthalmologically active agent may be an antiallergic agent containing basic groups such as pyridine and piperidine, and Kita et al teach that its compounds have excellent antiallergic activity, and contain both pyridine and a piperidine groups.

Regarding the limitations, "a water-soluble metal chloride in a light-stabilizing effective amount of 0.2 w/v% or more" (claim 1), "sodium chloride at not less than 0.2 w/v% and not more than 0.8 w/v% in a light-stabilizing effective amount" (claim 10), and "light-stabilized with a water-soluble metal chloride at not less than 0.2 w/v% (claim 13), Lehmussaari et al exemplify an amount of sodium chloride of 0.9% (col. 5, Example 2). This amount would necessarily be a light-stabilizing effective amount, as evidenced by Applicant's specification (e.g., see page 2, line 27 – page 3, line 10).

Regarding claims 2, 3, and 12, Lehmussaari et al exemplify sodium chloride as the salt present in the composition, in an amount of 0.9% w/v (col. 5, Example 2), which is within Applicant's range.

Regarding claim 4, Lehmussaari et al teach that the amount of active agent in the final composition is usually between 0.01 and 0.5% by weight (col. 4, lines 32- 34). This range overlaps that of the claimed invention; one skilled in the art would be motivated to manipulate the amount of active agent from within said ranges by routine experimentation, in order to optimize the efficacy of the resultant composition.

Regarding claims 5 and 6, Kita et al teach the benzenesulfonic acid salt of bepotastine (col. 1, lines 11-13).

Regarding claim 7, Lehmussaari et al teach that the pH of the composition is suitably from 5 to 8 (col. 3, lines 59-60), which is within Applicant's range.

Regarding the limitation that the composition is an eye drop (claims 8, 10 and 13), Lehmussaari et al teach that its invention is an easy-to-use eye drop formulation with improved patient compliance (col. 2, lines 3-5).

Regarding the limitation that the composition is a nasal drop (claim 9), said limitation recites an intended use of the composition. Since the components of the composition of the combined references are suitable for use in the nose, said composition would be capable of use as a nasal drop.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-10, 12, and 13 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments are directed to the teachings of Stevenson et al; however, this reference is no longer a part of the rejection applied, in light of Applicant's amendment (see paragraph 4, above).

### ***Conclusion***

No claims are allowed at this time.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA FRAZIER whose telephone number is (571)270-3496. The examiner can normally be reached on Monday-Thursday 9am-4pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSF

/Ashwin Mehta/  
Primary Examiner, Technology Center 1600